

Notice of Allowability

Application No.

09/964,144

Applicant(s)

MOSLEY ET AL.

Examiner

Art Unit

Amanda H Merlino

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments filed 4/19/04 and 6/16/04.
2. ☒ The allowed claim(s) is/are 1-62.
3. ☒ The drawings filed on 22 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Reasons for Allowance

Claims 1-62 allowed.

As to claims 1-17, the prior of record, taken alone or in combination, fails to disclose or render obvious device for optically measuring qualities of a substance comprising a first channel defining a first meridional plane, the first meridional plane including a first and second radiation source axially spaced relative to each other, the first radiation source emits a modulated beam of radiation distinguishable from the ambient light based on said modulation and the second radiation source emits a modulated beam of radiation distinguishable from the ambient light based on said modulation and a first detector wherein the first radiation source is positioned so that a principle ray emitting therefrom substantially passes onto the first detector , the second radiation source is positioned so that a principle ray emitting therefrom substantially passes onto the first detector and a second channel defining a second meridional plane comprising a third radiation source and at least one detector angularly spaced about the axis of the sample chamber relative to the third radiation source wherein the detector of the second channel receives the modulated beam of radiation emitted by the third radiation source after passage through the sample chamber, in combination with the rest of the limitations of claim 1.

As to claims 18-42 and 51-55, the prior of record, taken alone or in combination, fails to disclose or render obvious device for analyzing radiant transmission and scattering of an elongated sample comprising a first channel defining a first meridional plane, the first meridional plane inducing a first and second radiation source axially

spaced relative to each other, a first sensor wherein the first radiation source is positioned so that a principle ray emitting therefrom substantially passes onto the first detector, the second radiation source is positioned so that a principle ray emitting therefrom substantially passes onto the first sensor and a second channel defining a second meridional plane comprising at least one radiation source and at least one detector, in combination with the rest of the limitations of claim 18.

As to claims 43-47 and 56-60, the prior of record, taken alone or in combination, fails to disclose or render obvious a device for optically measuring qualities of a substance comprising a first channel defining a first meridional plane, the first meridional plane including a second means mounted adjacent to the sample chamber for emitting a modulated beam of radiation distinguishable from the ambient light based on said modulation and the third means mounted adjacent to the sample chamber for emitting a modulated beam of radiation distinguishable from the ambient light and the modulated beam of the second means, a first detector for detecting radiation wherein second means is positioned so that a principle ray emitting therefrom substantially passes onto the first detector, the third means is positioned so that a principle ray emitting therefrom substantially passes onto the first detector and a second channel defining a second meridional plane comprising a fifth means mounted adjacent to the sample chamber for emitting a modulated beam of radiation and a sixth means angularly spaced about the axis of the sample chamber relative to the fifth means for receiving the modulated beam of radiation of the fifth means after passage through the sample chamber, in combination with the rest of the limitations of claim 43.

As to claims 48-50, the prior of record, taken alone or in combination, fails to disclose or render obvious a method for optically measuring qualities of a substance comprising the steps of providing a first channel defining a first meridional plane, the first meridional plane including a first and second radiation source axially spaced relative to each other, the first radiation source being positioned so that a principle ray emitting therefrom substantially passes onto first detector, the second radiation source being positioned so that a principle ray emitting therefrom substantially passes onto the first detector, emitting modulated beams of radiation from the first and second radiation sources, each of the first and second radiation sources being modulated at a different frequency and therefore distinguishable from the ambient light and each other based on said modulation, providing a second channel defining a second meridional plane comprising at least one radiation source and at least one detector angularly spaced about the axis of the sample chamber relative to the at least one radiation source of the second, in combination with the rest of the limitations of claim 48.

As to claims 61-62, the prior of record, taken alone or in combination, fails to disclose or render obvious an instrument for analyzing color and scattering of a sample comprising a first means for defining a first meridional plane, the first meridional plane including a second means mounted adjacent to the sample chamber for emitting a modulated beam of radiation distinguishable from the ambient light based on said modulation and the third means mounted adjacent to the sample chamber for emitting a modulated beam of radiation distinguishable from the ambient light and the modulated beam of the second means, a fourth means for sensing radiation wherein second means

is positioned so that a principle ray emitting therefrom substantially passes onto the first detector, the third means is positioned so that a principle ray emitting therefrom substantially passes onto the first detector and a fifth means for defining a second meridional plane comprising a sixth means mounted adjacent to the sample chamber for emitting a modulated beam of radiation and a seventh means angularly spaced about the axis of the sample chamber relative to the sixth means for receiving the modulated beam of radiation of the sixth means after passage through the sample, in combination with the rest of the limitations of claim 61.

Conclusion

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax Machine located in Crystal Plaza 4. The form of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is:

703-872-9306


If the applicant wishes to send a Fax dealing with a Proposed Amendment for discussion for a phone interview then the fax should:


- 1) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Examiner Amanda H. Merlino* whose telephone number is (571)272-2421. The examiner can be reached on Mondays and Thursdays only.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-0956.

Amanda H. Merlino 
Patent Examiner
Art Unit 2877
June 24, 2004/ahm



FRANK G. FONT
SUPERVISORY PATENT
EXAMINER
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